ONTARIO SCRAP TIRE TASK FORCE

ACTION PLAN

FOR THE

MANAGEMENT OF

SCRAP TIRES IN ONTARIO

March, 1992

PIBS 1900

Ontario

Ministry of the Environment

Ministère de l'Environnement

Waste Reduction Office

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Dear Honourable Minister Grier:

Re: ACTION PLAN FOR SCRAP TIRE MANAGEMENT IN ONTARIO
FROM THE ONTARIO SCRAP TIRE TASK FORCE

I am pleased to present to you, on behalf of the Ontario Scrap Tire Task Force an Action Plan for the Management of Scrap Tires in Ontario.

This is a consensus document, developed by the stakeholders you appointed in July of 1991. It contains many positive suggestions for the province. Actions are planned which encompass tire retreading, value-added products, rubber modified asphalt programs, a scrap tire collection system and consumers education to extend the use of tires.

The Action Plan addresses the Ministry's short term goal of establishing scrap tire receiving facilities and at the same time it proposes quick ways to strengthen markets for products that contain recycled scrap tires.

The Members of the Scrap Tire Task Force feel certain that you will want to implement the recommended actions. It has been a pleasure to provide you with our input.

Sincerely yours,

Drew Blackwell
Assistant Deputy Minister

gs/DB

NOTE: This report is not Ministry policy. It is the collective advice of members of the Ontario Scrap Tire Task Force.

1019 (08/91)

100% Unbleached Post-Consumer Stock

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A. MISSION STATEMENT

I GOAL OF THE ACTION PLAN

Eliminate or reduce, to an acceptable level, the number of scrap tires existing in and entering the waste stream.

II STRATEGY STATEMENT

Scrap tire management in Ontario will be based on the 3R principles of waste management (waste reduction, reuse and recycling) with emphasis on value added products. An integrated collection system and receiving facilities are needed to support 3R initiatives. Rubber modified asphalt technology is to be pursued as a supporting option. Should this not meet the goal then the role of tire derived fuel will be examined.

B. INITIATIVES

I REDUCTION (not producing or minimizing the generation of scrap tires)

A reduction in the number of tires scrapped annually in Ontario can be achieved both by reducing society's dependence on the car, and by increasing the life of tires used by Ontario drivers. There is no doubt that decreasing car use would bring about numerous environmental and societal benefits, and provincial transportation policies are gradually beginning to reflect this fact. While an enormous amount of work needs to be done in this area, strategies to shift commuters from the car to public transit and to bicycles are beyond the scope of the Ontario Scrap Tire Task Force (OSTTF). Tire life has been significantly increased, by advances in manufacturing design. According to the Rubber Association of Canada, the introduction of the steel belted radial has resulted in an increase of approximately 300%. Manufacturers continue to extend the tread life of tires while maintaining safety and road holding, but further improvements are not expected to be of the same magnitude. All changes involve considerable research, development and testing.

Actions:

1. Initiate a public education program aimed at encouraging drivers to keep their tires and suspension system properly maintained to increase the life of the tires.

   The biggest opportunity for improving tire life lies in driver education; most tires are driven underinflated, and not regularly rotated. The Rubber Association estimates that tire life could be extended by up to 30% with the correct inflation and wheel alignment. This is an opportunity that can be seized immediately. It has no capital costs or experimental phases, and it has great potential benefits.

* Initiate an appropriate communications program that would be jointly spearheaded by the Ministry of the Environment, Ministry of Transportation, and the major tire manufacturers. Other sponsors could include environment groups, the CAA, major retailers, The Rubber Association and large service stations.

* The program should provide the following messages to drivers:

  - Its easy to check your tire inflation
  - Recommended tire inflation chart is mounted on your car door
  - Here is how you check your tires
  - Here is how much money you can save
  - Good tire maintenance helps the environment
  - Proper tire care improves safety
  - Proper tire care improves performance
  - Proper tire care means fuel savings

* This message would best be disseminated through a short, concentrated campaign of TV or Radio ads, or through ads at gas stations and on billboards.

* This campaign should be initiated immediately.

II REUSE (use of scrap tires in the same form for the same or a different purpose)

A. TIRE RETREADING

Tire retreading has been practised for many decades, and can significantly extend the life of a tire.

TRUCK TIRES

Truck and off-the-road vehicle retreading is already a well established industry in Ontario, principally because the use of retreaded truck tires represent significant savings to operators. Since many truck tires are not currently retreaded, there are still good opportunities to expand the use of retreaded truck tires.

Actions:

1. Procurement Policy Changes

Provincial and municipal governments have a direct interest in reducing the number of scrap tires generated. Both levels of government should revise their purchasing practices to maximize the use of retreaded tires. To some extent, this is occurring at the provincial level. The Province operates approximately 5,000 trucks and light trucks, and is shifting purchasing policies towards retreaded tires. Retreaded tires should also be used in contracted services where vehicles are used for government business.

* The Province should require municipalities to give preference to retreaded bus tires, as a condition of receiving funding for municipal transit programs. Currently, cities such as Thunder Bay, Kitchener, Welland, St. Catharines and Ottawa are already using retreaded bus tires.

* The Province should also consider requesting municipalities to incorporate retreading in their truck tire purchasing policies.

2. Public Education

* The Province, through the Ministry of Transportation and the Environment, should develop an information pamphlet outlining the financial and environmental advantages of using retreaded medium and light truck tires. The pamphlets would be distributed to municipal councils, and private fleet operators.

3. Move to retreadable tires on light trucks.

* The Province should meet manufacturers of light trucks and encourage them to equip such vehicles with retreadable six-ply truck tires. Such truck tires give a comparable ride to passenger tires and are similar in price. Buyers of light trucks should also receive information on the advantages of retreading truck tires.

4. Tire tax rebate on retreaded tires.

* The Province should institute a tire tax rebate on all truck tires when they are retreaded.

PASSENGER TIRES

Passenger tire retreading as an industry is currently virtually non-existent in Ontario. While the lack of this infrastructure is a major barrier to Ontario passenger tire retreading, there are several related obstacles. Drivers tend to view retreaded passenger tires as being unsafe. As well, industry representatives say that retreaded tires cannot compete in price with some cheaper brands of new tires. Without some government stimulus, it is unlikely that passenger tire retreading will develop as an Ontario reuse industry. The Province and manufacturers should take action in several areas to encourage the retreading of passenger tires.

The retreading options are contingent on retreaded tires meeting all necessary safety standards. These safety standards must meet the levels legislated for new tires. Adequate standards should be in place to ensure that each retreaded tire meets the accepted safety standards for new tires.

Actions:

1. Address outstanding safety concerns.

* The Province should initiate discussions with Transport Canada, which has jurisdiction over tire standards. Suggested contacts are Chris Wilson, the Director General or John Neufeld. If Transport Canada does not have conclusive data on the safety of retreads, the Province may find it necessary to commission a study into the use of passenger tire retreads in other jurisdictions, as well as Ontario.

  • In the U.S.A., for example, some government vehicle fleets use retreaded passenger tires, and a Chicago firm (Lakin Inc.) produces approximately 1000 retreaded tires daily. Similarly, in Germany, an estimated 20% of tires are retreaded, and passenger retreads are aggressively marketed as an environmentally friendly product. Passenger tire retreading also occurs in New Brunswick and Nova Scotia. In Ontario a small amount of passenger tire retreading is going on in Renfrew County. The study should review any safety surveys that have been carried out in these jurisdictions, and also investigate the standards which retreaders must conform to in their selection of casings, and in the retreading process. Such a study could be completed in about three months.

2. Initiate a demonstration project using passenger retreads.

* If the above study demonstrates that other jurisdictions have found passenger retreads to be safe, the Province should continue demonstration projects on a provincial vehicle fleet. The performance of several different makes of passenger retreads can be compared to conventional tires. If this demonstration project satisfies all concerns, the province should revise its own purchasing policy and begin to promote the use of passenger retreads.

3. Encourage private investment in passenger tire retreading.

* The Province should immediately ensure that the Industrial Waste Diversion Program is available and familiar to companies interested in passenger tire retreading.

* The Province should consider offering incentives such as low interest loans to companies expanding into passenger tire retreading.

* The Province should investigate a program of rebates on retreaded passenger tires, similar to the rebate offered by Ontario Hydro for high efficiency light bulbs and the provincial subsidy for home composters.

* Tire manufacturers also have a responsibility to encourage passenger tire retreading. Specifically, they should be encouraged to design tires so that they are more likely to be retreadable.

B. OTHER USES

1. Encourage and initiate the reuse of scrap tires in engineering projects and other reuse applications.

* Develop demonstration projects that evaluate reuse applications to determine their benefits and/or disadvantages.

* Review present legislation with respect to facilitating reuse applications.

III RECYCLING (Separation or extraction of useful materials from scrap tires for use in the production of new products)

The initiatives required to implement the recycling of scrap tires have been separated into two categories:

A. Value Added Products
B. Rubber Modified Asphalt

A. VALUE ADDED PRODUCTS

Objective

To accelerate the development of products and the expansion of markets which make use of crumb rubber in value added products (VAP).

Actions:

1. Subsidize the Ontario manufacturers of VAP based on the amount of Ontario crumb used.

   This subsidy (for example $2.50 per passenger tire equivalent) would provide the manufacturer with the incentive to use crumb rubber in areas where it would otherwise not be used. On a long term basis, the manufacturer would then be in a position to further develop crumb rubber into a material with inherent value.

   System Development

   - documentation and administration of system
   - reporting system for Ontario crumb used
   - determination of actual level of subsidy
   - streamlined mechanism for convenience of small and start-up operations
   - identification protocol

2. Funding of demonstration projects for new VAP and markets.

* This funding, to both public and private entities, would be used for projects with the potential to create substantial markets for VAP.

System Development

- This system is already in place and administered by the Ministry of Environment.

3. Creation of material standards.

* Work must be done to develop internationally recognized standards for crumb rubber and resulting compound specifications. Currently there are several different methodologies in place and it is difficult to compare results.

System Development

- review of current standards and methods
- development of standards
- industry review of standards
- finalization of standards

4. Procurement policies

* After the development of product specifications, the government should play a lead role in implementing purchasing policies that encourage and/or make mandatory the purchase of VAP using crumb rubber. The private sector should also play a role in implementing procurement policies.

System Development

- Actions would be required within purchasing departments of all levels of government.

5. Consumer awareness programs

* Both governmental agencies and the manufacturers of VAP must undertake promotional programs to encourage the use of VAP using recycled materials from scrap tires. These programs should be coordinated with the availability of specific VAPs.

Example: Part of a consumer awareness program could include a consumer rebate/coupon system to stimulate initial purchases. The administration and cost of such a program would have to be investigated.

* The Environmental Choice Program can provide a vehicle for recognizing VAP, but it has not yet been finalized for rubber products. This program should be finalized and promotional activities for both it and the general use of recycled materials should be increased.

6. Monitoring

* The progress and consumption of crumb rubber and the effectiveness of these programs would be monitored by the government (MOE/MGS/MITT) with periodic public reporting. A waste auditing program can be designed to include the necessary monitoring.

* News releases, letters or updates are methods to use.

B. RUBBER MODIFIED ASPHALT

Objective

Rubber modified asphalt has been identified as an intermediate option for managing scrap tires generated in Ontario. This option has the potential of providing a large end market for crumb rubber processors while the activities needed for the development of stable and significant markets for value added products are being developed.

In addition, the processing required for converting scrap tires into crumb rubber for use in asphalt paving is similar to the processing required to divert crumb rubber to value added products.

Actions:

1. The performance of the rubber modified asphalt roads must be assessed and compared ith conventional asphalt roads.

* Continue demonstration projects that evaluate the effectiveness of crumb rubber in asphalt. Short and long term benefits or problems must be identified.

System Development

- Demonstration projects can be initiated by the provincial government, municipalities or the private sector. These projects can be financially assisted by the Ministry of the Environment through existing funding programs. In order to ensure ongoing development of the technology and a stable market, it may be necessary to set a minimum annual quantity of rubber modified asphalt pavement to be laid in these projects.

- The Ministry of Transportation plays a key role in assisting proponents with these projects and reviewing the results. The MTO, through its review of the technology must determine whether the technology is acceptable for use on Ontario roads.

- If the technology is acceptable, MTO must develop specifications for rubber modified asphalt (RMA) use by municipalities so roads built with RMA qualify for MTO subsidy.

- Examine similar work done in other jurisdictions.

2. The environmental impact of using crumb rubber in asphalt must be assessed.

System Development

- Demonstration projects should include a program that assists in determining the environmental effects of the technology. This includes air emission monitoring, water quality, recyclability, health and safety issues.

- The Ministry of the Environment must play a key role in determining the scope of environmental monitoring and reviewing the results.

- The Ministry of the Environment, in consultation with the paving association, must develop operating and emissions guidelines for the asphalt plants.

3. The implications of rubber modified asphalt must be determined.

* The actual costs of using crumb rubber in asphalt must be determined and compared with conventional asphalt. In addition, the cost benefits of diverting the scrap tires from disposal must be identified and included in the analysis. This review should take into account life cycle analysis of the technology.

4. A separate funding mechanism specifically for the use of crumb rubber in asphalt must be developed if net costs are higher.

* Development of a subsidy program for the incremental costs.

* An integration of rubber modified asphalt roads in existing MTO subsidy programs for roads.

5. Sufficient crumbing capacity must be available within Ontario.

* If Ontario is to implement rubber modified asphalt the need for Ontario companies that can process scrap tires to meet the needed specifications is critical.

System Development

- The development of standards and specifications must take place.

- The required processing equipment to meet these standards and specifications must be determined and made available to crumb rubber processors.

- Financial assistance can be available to processors for the installation of the required equipment. This can be through existing MOE programs.

6. A program for information analysis and technology transfer must be in place.

* The key to the success of the program is the proper implementation of demonstration projects and the analysis of the results (both financial and technical).

System Development

- The concept of a "Centre for Excellence" should be established to coordinate the gathering of information on rubber modified asphalt. The Centre would evaluate technical and financial information, assist users of the technology through training programs, evaluate various methods of implcmenting the technology as well as other activities needed for the implementation of the technology.

- The Centre of Excellence could be coordinated through the Ministry of Industry Trade and Technology or the Ministry of Transportation.

C. SUPPORT SYSTEMS

An integrated collection system and receiving facilities are necessary to support the activities needed to make the transition from an infrastructure based on disposal to one that is based on the 3Rs. These support systems become increasingly important as more municipalities ban various materials, including scrap tires, from their landfills to preserve landfill capacity.

I COLLECTION SYSTEM

Objective

The Action Plan provides the means of establishing viable and legitimate destinations for scrap tires. The proposed collection system is designed to modify or control the existing collection system and ensure that the scrap tires are moved efficiently to preferred destinations in accordance with the 3Rs hierarchy. It is imperative that the proposed collection system ensure that only Ontario tires are within the system.

System Development Criteria

* The collection system should be based on a pay once scenario for the consumer. This should be paid at the point of purchase of new tires through the tire tax.

* The collection system requires sufficient storage for the scrap tires.

* The collection system should be controlled through a document system that is issued by the Ministry of Environment The document system should be:

- set up through appropriate regulations
- official, multi-part documents issued by the Ministry of Environment (MOE) to transporters
- signed by all tire handlers and one copy retained by each party that handles the tires
- administered by the accepted final receivers of the tires (e.g. summarizing, reporting, spot checking, retention)
- provided for Ontario tires only
- audited as required by the Ministry of Environment
- designed to allow splitting or amalgamation of loads

* The private sector should be responsible for the administration, implementation and monitoring of the collection system.

* Acceptable destinations for the scrap tires may be tire derived product producers, processors or receiving facilities. These receiving facilities may be municipal, private or provincial sites.

* The system should encourage the consumer to leave the scrap tires in the proposed collection system. The collection system consists of the following movement of tires:

  - consumer to new tire dealer or auto recycler
  - retailer or auto recycler to transporter
  - transporter to receiving facility, processor or tire derived product producer (TDPP)
  - receiving facility to processor or tire derived product producer
  - processor to receiving facility
  - processor to tire derived product producer

* The system should be reviewed after it has been in operation for six months to ensure that it is meeting the objectives of the collection system.

II INCENTIVE SYSTEM

Objective

A cash incentive system is necessary to ensure that tires move through the collection system as desired. The incentive will be used to move the value of the tire from a negative figure (wherein the retailer had to pay to have it removed) to a zero value.

System Development Criteria

* A basic principle of the system must be that movement of the tires to the highest use on the 3Rs hierarchy will be most rewarded financially.

    - The incentive should direct the scrap tires to 3Rs options rather than disposal options.

* It is the intent of the system to keep tires out of Ontario's ditches, woodlots and illegal piles by drawing tires from tire dealers and auto wreckers.

* The Province will pay incentives on a passenger tire equivalent basis to licensed receiving facilities, processors and tire derived product producers.

* Each of the above will pay the transporter from the funds they receive.

* The system should minimize administration requirements and costs.

* A processor only receives subsidy when the product goes to a receiving facility or to a tire derived product producer.

Development Strategy

* Determine the actual levels of subsidy (sophisticated study envisaged).

* Define a mechanism for transportation equalization; specifically for remote and northern communities with different circumstances and needs.

* Review the amount of incentives annually.

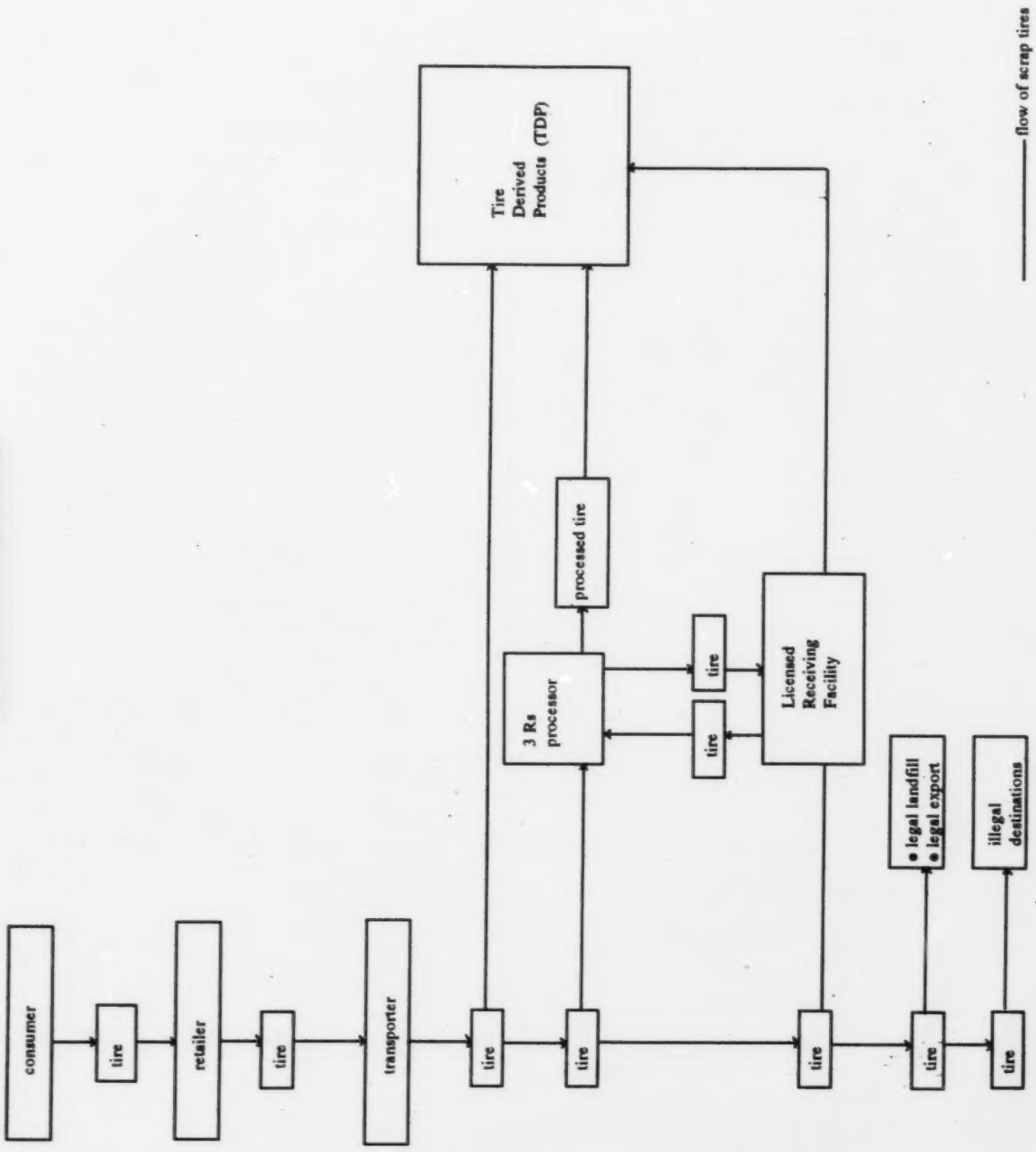
For the purposes of illustration with hypothetical numbers, the following is included to better explain the hierarchy and the principle of the incentive system. It must be understood that the numbers are arbitrary and would in actuality need to be flexible to allow for differences within a category.

Per tire **incentive grants** based on destination:

• licensed receiving facility	$1.00 (to be paid to transporter)
• processor (shred)	$1.25
• processor (crumb)	$1.75
• tire derived product producer (TDPP)	$2.50

The flow of tires is illustrated in the chart on the next page. (p.12)

TIRE FLOW


consumer
tire
retailer
tire
transporter
tire
tire
3 Rs processor
processed tire
Tire Derived Products (TDP)
tire
tire
Licensed Receiving Facility
tire
• legal landfill
• legal export
tire
illegal destinations
tire
flow of scrap tires

III COLLECTION MODEL

STEP 1 - Scrap tire enters the collection system

* Consumer purchases new tire and retailer receives scrap tire from consumer or consumer purchases new vehicle and scrap auto moves to auto recycler where tires are removed.
* Retailer collects $5.00 per tire tax from the consumer.
* No other disposal fee is collected from the consumer.
* Retailer submits $5 tire tax to Province along with the sales tax (present system should be split to allow auditing).

STEP 2 - Scrap tires enter transport system

* Retailer signs transport document for transporter.
* Retailer retains one copy.
* Transport document flows with scrap tire.
* There should be no payment to or from the retailer/auto recycler (payment would indicate a need to review the rebate system).

STEP 3 - Transporting the tires

* Transporter ships to the following receivers:
  - identified 3R tire derived product producer (TDPP)
  - identified 3R processor
  - licensed receiving facility
* Transporter signs and surrenders one copy of transport document(s) to receiver and retains one copy.
* Receiver signs and retains transport document(s). Checks accuracy and source of scrap tires.
* Receiver pays transporter for transportation costs (based on competitive forces or regulation)
* Transporter obtains blank transportation forms from the Ministry of Environment.
* If receiver is a licensed receiving facility, it will obtain payment from a provincial operating subsidy.
* If receiver is a processor, it will obtain payment from the province through the incentive program.

* If receiver is a tire product derived producer (TDPP), it will obtain payment from the province through the incentive program.

STEP 4 - Scrap tires/crumb reach tire derived product producer (TDPP)

* 3R tire derived product producer compiles a summary, of scrap tires/crumb received or processed, from the transportation documents for subsidy purposes. TDPP also relates quantity of tires received to products made.

* TDPP reports to Province for a per tire subsidy on crumb used.

* Province rebates TDPP on a per tire basis for using Ontario scrap tires for the sale of products.

* All original transport documents used by the collection system are issued by the Ministry of Environment to the transporter.

IV LICENSED SCRAP TIRE RECEIVING FACILITIES

Background

The management of scrap tires is closely linked with Ontario's overall management of waste. The lack of landfill space is driving municipalities to extend site life by banning specific materials such as wood waste, paper and scrap tires from their landfills.

Amendments to the Environmental Protection Act and Regulation 309 have increased the controls on the management of tires in Ontario. These stringent controls coupled with the increasing number of landfills that are banning tires, have reduced the number of sites accepting tires for disposal.

Purpose

Licensed receiving facilities will be required in the short term to provide outlets for scrap tires. These facilities will accept scrap tires in "processed" or "unprocessed" form, sort any that may be acceptable for reuse and retread, direct scrap tires to existing recycling facilities and store the remainder in a manner that will be acceptable to both the host community and to tire derived product producers or processors as end markets for value added products are established. Once the demand for the tires equals the supply, these sites can act as transfer stations for the scrap tires.

Objective

The sites will:

- become part of the collection infrastructure
- ensure a mechanism for proper waste management

- provide an alternative to disposal
- minimize illegal dumping
- compete with export options

Criteria

The draft plan for these facilities is based on the following criteria:

1. Tire Derived Product Requirements

* Ideally these sites should contain approximately 3 million tires province-wide to act as a buffer in supply.

2. Storage Requirements

* Approximately 10 to 15 million tires over the next 5 years.

* The following estimates were used to assess storage needs:

Calculations of Storage Requirements

Millions of Tires

Year	VAP (value added products)	RMA (rubber-modified asphalt)	Generation*	Cumulative Storage
1992	1.5	0.3	8	6.2
1993	4.0	1.0	8	9.2
1994	6.0	2.0	8	9.2
1995	7.0	3.0	8	7.2
1996	9.0	3.0	8	3.2
Total	27.5	9.3	40	na

* Whole tires including passenger and truck tires

Maximum storage: Approx. 10 million tires
*VAP and RMA

or

Maximum storage: Approx. 13 million tires
*Only VAP - assumes that the rubber asphalt option is not available

Note: There are approx. 3.5 million tires already in storage

3. Policy Goals

* Minimize the number of sites needed and the ultimate size of each site.

* The capacity of the established sites must meet the need or tires will once again have a negative value.

4. Tipping Fees

* In order to ensure that these facilities compliment the proposed collection network the tipping fee at the sites should be zero. This also means that the consumer pays once, through the tire tax, at the purchase of the replacement tire.

* The operator of the facility pays for the transportation costs to transport the tire from its point of collection to the site. The operator will receive payment for the tire once that tire has been directed to a processor or value added product manufacturer who receives a rebate from the tire tax for using the crumb. In the short term, the operator will be paid from the tire tax if the tires must be stored.

* The capital and operating costs of the site are paid from the tire tax revenue. The operating costs should be based on a per tire rate and adjusted once the tires reach a processor or value added product manufacturer.

5. Manner of Storage

* Scrap tires must be stored in a manner that makes them acceptable to end users. Guidelines are needed for this.

6. Clean Up Plan

* Each site must include a plan for clean up that takes the inventory to zero so that scrap tires entering the facility equal scrap tires sent for processing. This equilibrium must be in place by the year 2000 or as agreed by the site owner and the Province.

Actions:

1. The Ministry of the Environment, should through consultation with municipalities and industry establish guidelines for the scrap tire receiving facilities. These guidelines should address the following issues:

   - compliance with provincial legislation and regulations
   - compliance with municipal legislation and by-laws and fire deparment regulations
   - location and size of sites
   - ownership of tires

- number of tires
- acceptable manner of storage

2. In order to expedite the approvals process, the Ministry should set up a Permit by Rule system for tire recycling and receiving facilities.

3. The Province should encourage operators to set up receiving facilities in strategic locations throughout the province. The preference would be to set up approximately 10 to 15 regional sites.

4. Operators would be responsible to ensure that the tires accepted at the site are from Ontario and to divert the tires to processors and tire derived product producers, once the markets develop.

5. The Ministry of Environment should set up a benefit package for the operators and promote the funding mechanism for these sites.

* The funding mechanism should include:

- 100% capital funding for municipal sites and a negotiable amount for private sites
- operating subsidies based on a per tire figure
- funding for fallback disposal if end markets do not materialize

6. The Ministry of Environment should set up provincial sites where municipal or private sites are not workable i.e. remote areas.

7. The Ministry of Environment should provide funds for recycling and/or fallback costs to operators by a fixed period to reduce the storage of tires to zero.

D. TRIGGER POINT

Scrap tire management in Ontario will be based on the 3R principles of waste management (waste reduction, reuse and recycling) with emphasis on value added products. An integrated collection system and receiving facilities are needed to support 3R initiatives. Rubber modified asphalt technology is to be pursued as a supporting option. Should this not meet the goal then the role of tire derived fuel will be examined.

The purpose of the trigger point is to provide a control on the number of tires that could end up stored in receiving facilities in the province should the markets for value added products not develop as anticipated.

The question of "when will the tire derived fuel option be examined?" requires a target. The following time table is proposed:

The tire derived fuel option will be examined with respect to its need, viability and implementation once the number of tires stored in the provinces reaches 15 million or by the end of 1996, whichever comes first.

Reasons:

1. It is estimated that storage capacity is required for approximately 13 million tires before markets for VAPs start to decrease the stockpile inventory. Should the Province have 15 million tires in storage, then the trend must be examined and steps taken to ensure that the stockpile does not increase and that it can be reduced to zero.

2. It is estimated that it will take until 1995 until markets for VAP make a significant impact on the diversion of scrap tires from disposal. It will be realistic to assume that by 1995 we will be in a position to indicate whether VAP markets can absorb sufficient quantities to consume the ongoing generation and start decreasing the stockpile inventory.

3. This plan takes into account the possibility that VAP may not meet the projected diversion quantities by the end of 1996 and therefore result in a greater number of tires needing storage.

It is understood that the review process at the trigger point will evaluate the extent to which the goals are being met. If the goals are proceeding prositively (i.e. only 4 million tires are in storage by the end of 1996 and VAP markets are steadily growing) it may be decided to continue with the strategy.

However, the 15 million tires in storage is the ultimate trigger point for re-evaluation of the derived fuel option, regardless of which year this occurs.

The projections do not take into account scrap tires that may be disposed of during this time period or exported to other jurisdictions. This would decrease the number of tires that require storage at these sites.

It is also necessary that the collection system will incorporate a mechanism that will allow the Province to determine where tires are going and in what quantity.

E. PROCUREMENT

Objective

* To stimulate, through specific procurement policies, the reuse, retreading and recycling of scrap tires.

Actions:

1. Develop procurement policies to assist in the market development of reuseable or value derived products.

* Study initiatives taken by other agencies.

* Establish a mechanism to assist the procurer to evaluate the product(s) in terms of workability and safety.

System Development

- Research funding to the procurer or central agency to conduct independent tests in order to assure that the product has no liabilities.
- Coordinated development of specifications.
- Provide assistance for first purchases of scrap tire derived products by government procurement agencies. This can support the start-up of a manufacturing industry.
- Provide encouragement and technical support for first purchases of retreads by government agencies.
- Provide incentives for procurement bodies on purchases of tire derived products.

2. The government should initiate specific procurement measures.

* Ensure that trucks use retreaded tires where possible.

* The testing and subsequent procurement of retreaded passenger tires for all vehicles. This requires discussions with other agencies such as Transport Canada and the development of specifications.

3. The Ministry of Environment should press other ministries, other levels of government and industry to ensure the purchase of retreads and tire derived products, where possible.

F. FINANCE

The government has been collecting a tire tax of $5.00 plus provincial sales tax on every tire sold since June 1989. The reality of the situation is that the consumer usually pays a disposal fee in addition to the tire tax. Tire buyers should pay only once, through the tire tax, to finance the management of scrap tires.

Actions:

1. All revenue derived from the tire tax should be used to support the scrap tire management action plan.

* The Ontario Scrap Tire Task Force should make a presentation to the Fair Tax Commission and the Treasury Board about the use of the tire tax on an ongoing basis.

* The Province should adopt the concept that, to the extent necessary, the tire tax will be used for the direct ongoing subsidy of tire derived value added products in a way that will not detrimentally effect free trade dynamics.

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GLOSSARY OF TERMS

CRUMB RUBBER	• Vulcanized rubber particles resulting from mechanical or cryogenic size reduction processing of scrap tires.
LICENSED RECEIVING FACILITY	• A licensed temporary storage facility for processed or unprocessed tires.
PASSENGER TIRE EQUIVALENT	• A typical scrap passenger tire weighs 12 kilograms. Due to the various types of tires in the stream, they are referred to in terms of these 12 kg. equivalents. A truck tire, for instance, would be equal to approximately 4 1/2 passenger tire equivalents.
PROCESSOR	• Operator who changes a scrap tire into a form suitable for storage or use in TDPP manufacture.
TIRE DERIVED PRODUCT PRODUCER (TDPP)	• A value added product manufacturer, a retread manufacturer, or a rubber modified asphalt paver.
VALUE ADDED PRODUCT (VAP)	• A manufactured product containing crumb rubber or equivalent materials derived from scrap tires.